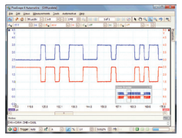
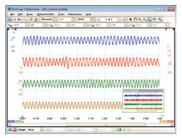
AN INTRODUCTION TO PC OSCILLOSCOPE DIAGNOSTICS

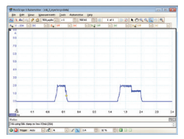
pico® Technology

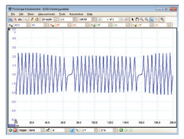
PICOSCOPE WAVEFORM LIBRARY

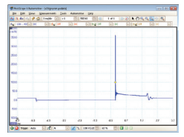
PicoScope includes a library of over 120 built-in tests. Each test includes all scope settings there is no need to set up the scope every time. You can save your own tests as files.

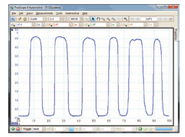

CAN BUS H & L LINES


ABS SENSORS


COMMON RAIL DIESEL INJECTOR


CRANKSHAFT SENSOR


PRIMARY IGNITION


LAMBDA SENSORS

PICOSCOPE, THE PC OSCILLOSCOPE SOFTWARE FROM **PICO TECHNOLOGY,** IS SUPPLIED WITH EVERY PICO DIAGNOSTIC OSCILLOSCOPE

SCOPE BUTTON
Click to return to the normal oscilloscope display mode.

CHANNEL CONTROLS
In "Auto" mode PicoScope adjusts the input range to fit the signal. You can override this to set your own range for each channel.
"DC" shows the entire signal. "AC" filters out any DC offset – useful for ripple measurements.

CHANNELS A, B, C & D
These are linked to the channel controls above. Each channel corresponds to one of the BNC connectors on the PicoScope oscilloscope.

CHANNELS RULER
Drag a colored handle from the top of the window to the level you want to measure. The ruler legend shows the measurement.

TRIGGER MODE
AUTO displays a stable waveform when possible.
NONE always displays regardless of the waveform.
SINGLE displays a single waveform then stops.
REPEAT displays only stable waveforms.
RAPID captures a sequence of waveforms.

AUTO SETUP BUTTON
If your test is not in the Automotive menu, this helps you find the signal.

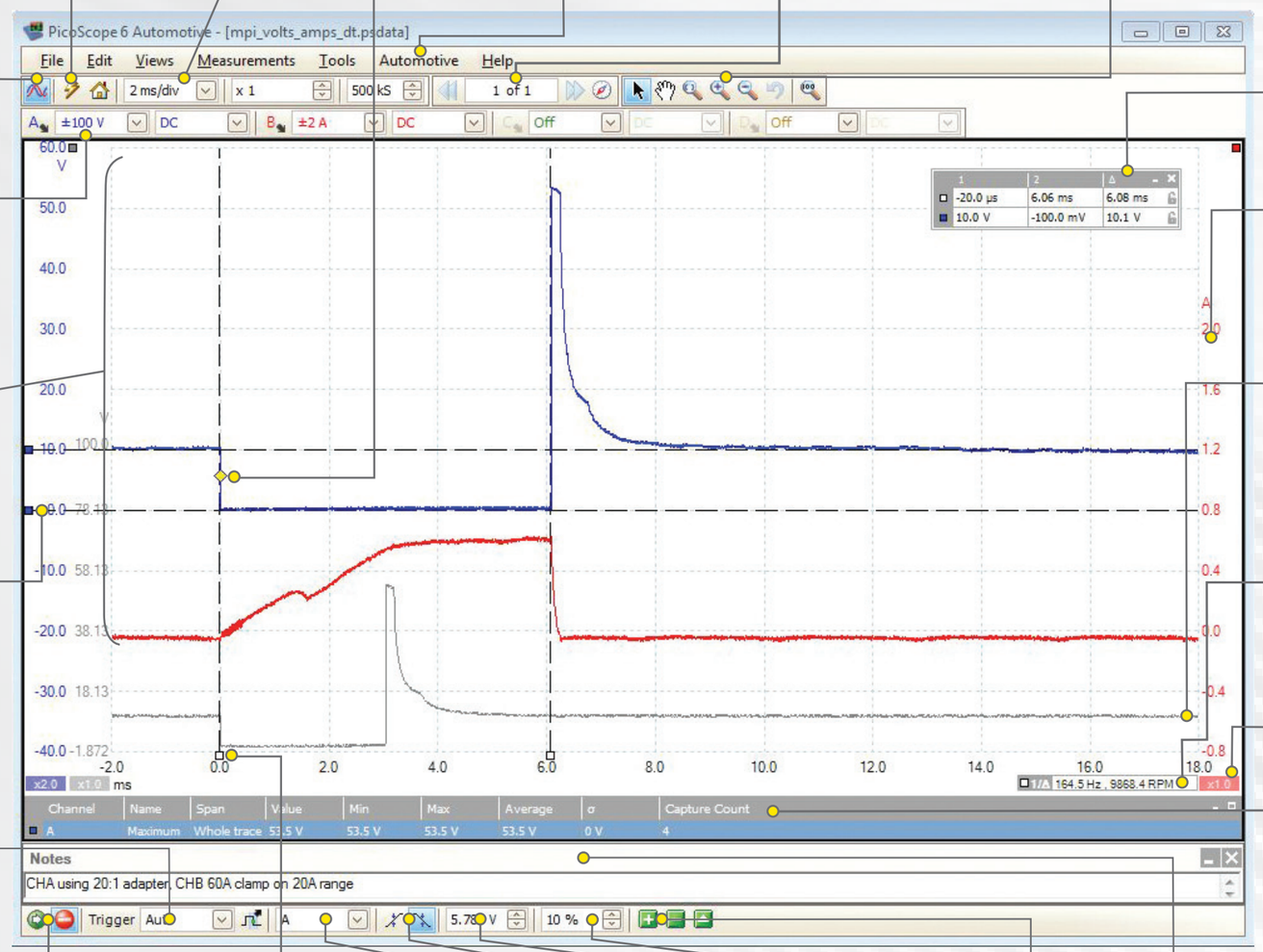
TIMEBASE CONTROLS
Set the time interval across the screen, zoom factor, and record length.

TRIGGER MARKER
Shows the channel, signal level and time of the trigger event. Drag to adjust level and delay.

AUTOMOTIVE MENU
Contains a library of over 120 waveforms. Selecting one automatically sets up the scope to capture a waveform of that type.

BUFFER CONTROLS
PicoScope stores up to 10,000 of the most recent waveforms in a buffer. Use these controls to search through them. Useful when you are trying to find an intermittent fault that might not be present on every waveform.

ZOOM BUTTONS
These affect the entire view. Zoom in and zoom out, zoom to a specified area, or pan the display. To zoom a single channel vertically without affecting the others, use the scaling buttons at the bottom of the view.



PICOSCOPE RUNS ON MICROSOFT WINDOWS XP, WINDOWS VISTA AND WINDOWS 7 (32-BIT AND 64-BIT).

RULER LEGEND
Shows measurements of all rulers on screen. If a channel has two rulers enabled, then the legend also shows the difference between them.

CHANNEL AXIS
There is a color-coded axis for each channel. Drag it up or down to position the channel.

REFERENCE CHANNEL
This channel shows a waveform that was saved in a previous session using the Reference Waveforms tool. Retrieve it by using the Reference Waveforms tool again.

FREQUENCY & RPM INDICATOR
When you position two time rulers one revolution apart on a waveform such as a crankshaft sensor waveform, this indicator shows the frequency and RPM.

SCALE AND OFFSET BUTTONS
There is a color-coded button for each channel. Click it to reveal the scale and offset controls.

MEASUREMENTS TABLE
Lists all your dynamically updated automatic measurements with statistics. Click the Add Measurements button to add more. Choose from dozens of measurement types.

PICO DIAGNOSTICS, THE EASY TO USE DIAGNOSTIC SOFTWARE, IS SUPPLIED WITH EVERY **PICOSCOPE** AUTOMOTIVE OSCILLOSCOPE


CYLINDER BALANCE TEST

STOP/START CONTROL
Click to start displaying waveforms. Click again to stop. The space bar on the keyboard has the same function.

TIME RULER
Drag a white ruler handle from left to right to mark a point on the axis. The ruler legend shows the time at each ruler and the time difference between two rulers.

TRIGGER SOURCE
Choose which channel to trigger on.

EDGE SELECT
Trigger on rising or falling edges.

THRESHOLD
Set the voltage at which the trigger operates, or drag the trigger marker.

PRE-TRIGGER
How much of the waveform is captured before the trigger event. Linked to the horizontal position of the trigger marker on the screen.

MEASUREMENT BUTTONS
Click to add an automatic measurement to the measurements table, or to delete or edit one.

NOTES AREA
Type your own notes and save them with waveforms.

UPDATES TO **PICOSCOPE** CAN BE DOWNLOADED **FREE** FROM **WWW.PICOAUTO.COM**

ACCESSORIES

WPS500X PRESSURE TRANSDUCER

With the WPS500X Automotive Pressure Transducer you can perform quick and accurate pressure analysis of many automotive systems.

CAN TEST BOX

This is a breakout box for the 16 pin diagnostic connector. LEDs show which protocols are in use and a pass-through connector allows for connecting a scan tool.

6-WAY UNIVERSAL BREAKOUT LEADS

No need to pierce insulation or back-pin connectors.
Fully shrouded and insulated for safety. These breakout leads simply connect into the existing cable loom and enable voltage readings to be taken from numerous sensors in the engine compartment

FUSE EXTENSION LEADS

ATS and mini-ATS sizes for common fuses.
Use with the 60 amp clamp to measure fuse current.

WWW.PICOAUTO.COM